2019

Part – II

STATISTICS

(HONOURS)

Paper – IV

Full Marks – 45

Time : 2 Hours

The figures in the right hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

GROUP – A

1. Answer any **one** question : 10×1=10

(a) (i) Write a program in C to calculate the correlation co-efficient of a grouped frequency distribution. 7

(ii) Describe any two decision control struc tures used in c programming. 3

(b) Carry out the following conversions : 6

(i) $(35{\cdot}AC)_{16} = (.....)_8$

(ii) $(46{\cdot}94)_{10} = (....)_2$

(iii) $(1101{\cdot}111)_2 = (\quad)_{10}$

(iv) Write a flowchart to find the maximum of three natural numbers. 4

2. Answer any **two** questions : 5×2=10

(a) Explain the process used to fit a linear trend to a given set of data in MS-excel. 5

(b) What are the different computer languages used ? What do you mean by an operating system ? 3+2

(c) Add the following binary numbers :

(i) 1111·101 and 101·111 $2\frac{1}{2}$

(ii) 101011 and 1110 $2\frac{1}{2}$

GROUP – B

3. Answer any **three** questions : 5×3=15

(a) What do you mean by a life table ? Distinguish between a complete life table and an abridged life table.

(b) Define total fertility rate (TFR). Describe theadvantages of TFR over other fertility rates. 2+3

(c) Describe the errors that arise in vital data. 5

(d) Discuss briefly the component method for population projection. 5

(e) Differentiate between morbidity incidence rate and morbidity prevalance rate. 5

4. Answer any **one** question : 10×1=10

(a) Describe the different functions used in a complete life table. 10

(b) What do you mean by population forecasting ?

Discuss the use of Rhode's method for population forecasting. 2+8